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ORDINARY MEETING, MAY 4TH, 1868.

THE REV. WALTER MITCHELL, M.A., VICE-PRESIDENT, IN THE
CHAIR.

The Minutes of the last Meeting having been read and confirmed, the Secretary announced the name of the following new member :—

Rev. George Roy Badenoch, Member of the General Council of Glasgow University, 1, Whitehall Gardens.

In the absence of the Author, the Hon. Secretary read the following Paper :—

ON THE NATURE OF HUMAN LANGUAGE; THE NECESSITIES OF SCIENTIFIC PHRASEOLOGY, AND THE APPLICATION OF THE PRINCIPLES OF BOTH TO THE INTERPRETATION OF HOLY SCRIPTURE. By the REV. JOSEPH BAYLEE, D.D., Principal of St. Aidan's College, Birkenhead; Assoc. Vict. Inst.

HUMAN language is the utterance of human thought. In a limited degree, the expression of feelings is indicated by sounds which have a natural connection with those feelings. These are chiefly interjections, and are remarkably similar in most languages—*e.g.*, *oh*, *ah*, and such-like. Some names of animals are derived from their natural cries. But the number of words derived from these sources is so small that they may be omitted from an outline discussion of the nature of language.

Had we the means of forming a judgment, a very interesting inquiry would be whether there is any natural relation between vocal utterances and intellectual ideas. In our present condition, we may safely affirm that there is not. If we were in an animated assembly, where impassioned speakers poured out torrents of debating eloquence in a language wholly unknown to us, we might be greatly interested at the sight, we might even be excited by their manifested emotions, but we should be wholly unable to catch any of their ideas. There is there-

fore, at present, no known natural connection between vocal sound and intelligent meaning.

The narrative in the second chapter of Genesis gives us invaluable suggestions respecting human language. Adam and Eve were created on the sixth day. Previous to the formation of Eve, the Lord placed Adam in Paradise, gave him instruction and admonition, and showed him all the newly-formed beasts of the field and fowls of the air. Adam gave them names when he saw them. If we may assume that there is no natural connection between sound and sense, God must have bestowed upon Adam a language sufficiently extensive for his then present needs, with the power of enlarging it as new objects were presented to his senses, and new thoughts came into his mind. It was in this way that Adam gave names to all the animals presented to him. The Hebrew language, as now known to us, is probably an adequate representative of the original language spoken by Adam. The names of himself and his descendants, of Eve, of Abel, and of Cain and his descendants, are all significant in Hebrew; they are not so even in the cognate languages. Now, as we may be certain that the first who gave the name of George was a Greek, so we may assume that those who gave those significant names spoke Hebrew. In examining the names of animals in Hebrew, we find that they do not describe their nature, but simply some one distinctive character. Some names are taken from their cries, others from similar causes. So it is with the names for man: Adam is man in the Divine image, from *dāmā*, to resemble; *ish* is man as lord of the inferior creation, from the formative *aleph*, and *yesh* (an existence), *i. e.* the principal being; *ēnōsh* is man in wretchedness, from the same formative *aleph*, and *noosh*, rendered "full of heaviness" in Ps. lxi. 20. From these suggestive hints in Scripture we learn that the fundamental elements of language were God's immediate gift to Adam, with the power of enlarging it as his wants or his circumstances demanded.

In confirmation of this view there are two phenomena of biblical Hebrew worthy of attentive consideration; one is the significance of some remarkable words, the other the modifications of meaning in the usage of some words. In illustration of the former, let us take the words Earth, Deep, Firmament, Lights; and of the latter, Living Soul, Life, Priest.

EARTH.—אֶרֶץ (*ērētz*) is from רָץ (*rootz*), to run, with the formative א (aleph).

DEEP.—תְּהוֹם (*thē-hōm*) is from הוּם (*hoom*), to agitate, to break up. It is the crust of the earth, and is distinguished from the sea in Job xxviii. 14, although it is metaphorically used for the sea in various places.

FIRMAMENT.—פֶּזַז (*rā-kē-ang*) is a beaten-out thing, and so, an expanse.

Contraction and expansion, solidification and fluidity, are idealized in this word, and exemplified in its usage.

LIGHTS.—מִנְיָהִים (*mē ṣ-rōth*) is not to be confounded with the simple word אֵשׁ (*ōhr*) light. "Lights" is rightly expressed in the Vulgate by *Luminaria* and in the Septuagint by *φωστῆρες*, lamps.

As the receptacle of light the word is feminine, as the dispenser of light it is masculine.

LIVING SOUL.—נֶפֶשׁ נְחִיָּה (*nephesh chāy-yāh*) is a bodily frame with life in it. Its historical usage exemplifies the modifications of the application of a word in the progress of a spoken language. In the Pentateuch the word *nephesh* is all but exclusively applied to the body; in the Psalms it is invariably applied to the soul.

LIFE.—חַיָּה (*chācē*) seems etymologically to mean activity, and therefore motion. Hence the word was applied to running water.

In its feminine form the word was joined with נֶפֶשׁ (*nephesh*), a bodily frame, to express a living animal; but when we come to the times of Ezekiel, it is used without *nephesh* to express the living animals which Ezekiel saw in vision. Hence St. John describes the same symbolical creatures as ζῴα, living creatures, or beasts, in the old English meaning of the word.

A very instructive use is made of the word life as applied to animals or to men. In the latter case it is almost invariably plural, in the former always singular. This implies two lives in a man, and but one in an animal. Body, soul, and spirit is the threefold complexity of man.

PRIEST.—כֹּהֵן (*co-hain*) is another illustration of the historical modifications of language. In its earlier usage it applied to a public functionary, whether secular or sacred. In later times it was limited to the priesthood.

Whether we assume language to be a divine gift or a human invention, it is remarkable that the most ancient language in the world should have words indicative of a more profound knowledge of natural phenomena than science could have discovered at so early a period. How could any one account for the most ancient language in the world giving such a name to the earth as the runner, except by Divine gift? This is the more striking when we remember that the name, without its significance, has found its way into other languages. *Eretz* is plainly the original of *Erde*, earth.

From these suggestive hints of the origin of language let us pass on to the consideration of the marvellous variety of languages. Here again a suggestion is given in one Scriptural phrase worthy of our most profound study: "Go to, let us go down and there confound their language, that they may not understand one another's speech." The various languages are a

confusion, not a creation. Let us observe the attempts of children to imitate articulate sounds, and we shall find them involuntarily substituting one letter for another. This is caused by the imperfect development of the organs of speech. A comparatively slight modification of the organs of adults would produce similar results. This would be sufficient to produce the primary result at the tower of Babel. Climate, association, and various habits and circumstances, would produce the rest. These thoughts would furnish an additional clue to the modern philological inquiries which have already yielded such excellent fruit.

It is well for the interests of biblical science that the investigations of modern philologers have been carried on independently of any conjectural theory of language. Those investigations were too long confined to the cultivated forms of language, as seen in written works. Philologers have at length discovered that there is a mine of hidden wealth in the once neglected speech of uncultivated tribes. This has produced almost a literary revolution.

By an extensive comparison of languages, that great instrument of human thought is far better understood, and its principles more truly appreciated. The various contrivances to express the shades of thought have been more distinctly seen, and language, as an instrument of thought, has been brought more clearly under the investigation of true philosophy.

The words by which ideas are expressed can never be clearer than the ideas themselves. Where the latter are undefined, the words must have a corresponding indefiniteness. The Bible, as God speaking to man in human language, must be dealt with on the principles of human language. It is God's infallible revelation conveyed to us through a fallible instrumentality. The contrivances resorted to by Divine wisdom to secure the infallibility of His word are truly wonderful, and yet they are all within the sphere of human agency. In the first place, the language of the Bible is to be examined as we examine that of any other book. If we are interpreting an author, we consider the times under which he wrote, his own circumstances and character, the state of the language in his time, the subjects on which he was writing, and similar matters. A poet, a historian, a metaphysician, or a lawyer, would not use certain words in the same exact meaning. The metaphors of poetry would be out of place in the discussions of metaphysics. The *αἰὼν* of Homer is not the *αἰὼν* of Alexandrine philosophy, nor again of the Rabbinical phraseology. In our own day the democrats of America are not to be classed with the democrats of England. In France, a Unitarian is one

who wishes France to be a unity; in England, he is a denier of the Divinity of Christ. The Latin *sacramentum* has gone through three distinct meanings, preserving one fundamental idea. Sacredness runs through the three. With Cicero, *sacramentum* would include, if not express, the military oath. In the Vulgate it is the representative of the Hebrew פֶּלֶא (*pēlā*), a wonder, and of the Greek μυστήριον, a mystery. It is applied to Nebuchadnezzar's dream, and to the woman who was sitting upon the beast. Since the scholastic writings, the word has included spiritual grace.

From the Rabbinical writers the Greek αἶδον has acquired the meaning of the material world, as we see in Heb. i. and xi.

On these principles we may lay down the general rule that the language of the Bible is to be interpreted on the principles of human language.

In order to preserve the infallibility of Divine revelation in the use of so fallible an instrumentality as human language, God has given the revelation of His mind and will in various ways. History and biography exhibit, if I may use the expression, principles incarnated. Ritual and Symbol are other forms of declaring the same truths. Ordinary didactic language combines with them to make doctrinal teaching infallibly clear. Another provision has been the gift of Divine revelation in two languages, by which many ambiguities are removed. It would be a work of surpassing interest to pursue this part of the subject at great length, but it does not directly come within our present purpose. I pass on, therefore, to the necessary principles of scientific language.

As I have already said, human language can never be clearer than human thought. Where ideas are unavoidably obscure, language must be proportionably so. A striking example is in the word *person*. Who can tell what is the bond of connection between body, soul, and spirit, which we describe as personality? We are conscious of being a unity, yet how great a complexity. Person, in Greek ὑπόστασις, expresses a mode of being, without defining the mode. As God and man are united in Christ in one consciousness, we speak of Jesus Christ being one Person in two natures. In the Godhead, on the other hand, there is a threefold consciousness in one Being,—Father, Son, and Spirit, that we designate three Persons in one God. Further than that it is, at present at least, impossible for us to go. How convenient and how adapted to the need of indistinct conceptions is an indefinite word which describes a mode of existence without exactly declaring the mode.

In scientific matters we act on the same principle; indeed

we could not do otherwise. We know nothing as it really is: we know it by its qualities and appearances; but the true reality is beyond our reach. If we endeavour to declare what gold is and what is silver, we can only describe one quality after another. We state in what things they agree, and wherein they differ; but at the end we have only been describing qualities or phenomena, not realities. Colour, specific gravity, ductility, and so forth, only describe properties. The same principles apply with equal, if not greater force, to what we generally call natural phenomena. If some new appearance were now to be visible in the heavens, we should at once describe it by some distinctive phenomenon. Gradually scientific men would discover additional phenomena. The original name would imperfectly describe the new knowledge, but it would be found more convenient to retain it. Who would think of altering the terms comet, planet, fixed star? Yet who believes that the comet is a hairy star, the planet a wanderer, or the fixed star immovable? What confusion has been introduced into science by needless changes of terms. In consequence, older books become limited to the learned, through mere nominal change. This is especially the case in geology: Eocene, Meiocene, Pleistocene will probably soon become obsolete terms, and granite give up its claim to be always a primary rock. To attempt to describe things instead of phenomena in natural science would introduce endless confusion. On the other hand, where the phenomenon continues the same, the retention of the same term is of ready adaptation to general use. The thing becomes the subject of scientific study, the name is only intended to describe the phenomenon. Would it be possible to invent two terms equally convenient with sunrise and sunset? Yet who believes that the sun really rises and sets? Let us then lay down the general principle that the language of science is that of phenomena, and apply the principle to the interpretation of Scripture. In doing so all confusion would vanish. The famous objection to the sun and moon standing still would become changed into admiration of the Divine wisdom and goodness. The objector asks, with an air of triumph, are we really to believe that God stopped the course of the solar system for the convenience of the Israelites when fighting a battle? How many minds have been disturbed by the apparent difficulty. But let us examine the language of the narrative: "So the sun stood still in the midst of heaven, and hasted not to go down about a whole day." (Josh. x. 13.) Let us ask the objector what does he mean in ordinary language by the sun going down? Does he describe a phenomenon or a reality? There can be but

one answer. Why then does he not apply the same principle here? If sun-down means the apparent descent of the sun below the horizon, sun-still describes an analogous phenomenon. The one describes the reality no more than the other. Instead, therefore, of inquiring whether the whole solar system suddenly stopped, we are only required to believe that by some means unknown to us it pleased God to cause the sun to retain his apparent place in the heavens for twenty-four hours. We have no more need to inquire into the manner how than in the case of any other miracle. How were the loaves and fishes multiplied? how did Jonah breathe when in the whale's belly? how will the dead in one moment assume resurrection bodies? One answer covers all—by the power of God.

Let us examine this miracle of the sun and moon in another aspect, and we shall see in it abundant evidence of Divine wisdom and goodness. The nations of the world were rapidly casting off the worship of the one true God, and the inhabitants of Syria especially had given themselves up to nature-worship. The sun and moon were their principal deities. In His wisdom and righteous judgment, God was allowing the nations of men to walk in their own ways and to choose their own delusions, yet He left not Himself without witness. He placed one people in the centre of the inhabited world, and committed to them a written revelation and an instituted worship. These were to be God's witnesses to all nations, and in order to be so, must themselves be preserved from all idolatry. By manifesting His power in that remarkable manner over the sun and moon, He gave public evidence, not only to Israel but to all nations, that He was supreme over all nature. Who can tell the amount of preservation to Israel, and of instructive admonition to all nations, from the Pillars of Hercules to the remote East, which resulted from that one transaction? As far as eternal interests exceed temporal ones, so far did the wisdom and love which granted that wonderful phenomenon exceed the agency by which it was produced. Down to the death of the elders, who over-lived Joshua, Israel continued steadfast in the worship of the one and only God.

Interpret the words of Joshua as the language of phenomena, and science has no objection to allege against the history.

Let us now come to the much-cavilled-at chapter which gives us an account of the origin of all things and of the six days' work. There is no doubt that on a superficial reading of the first chapter of Genesis there is an apparent contradiction to what science teaches us respecting the true condition of this earth. Many contrivances have been made to harmonize the discoveries of geology with the supposed meaning of Moses's

words. They have deservedly failed, for they are founded on false assumptions. The Bible needs no such contrivances. It only requires to be dealt with as we do with the interpretation of human writings. In the first chapter of Genesis all is historic narrative, and all should be interpreted as scientific history. In doing so we have only to keep close to the *usus loquendi* of the Hebrew language, and everything is not only accordant with our true knowledge of natural phenomena, but the whole is full of most admirable suggestion. The narrative opens with the truly majestic statement: "In the beginning God created the heaven and the earth." Those who have studied the speculations of Greek and other philosophers respecting the origin of all things, and have been wearied with their interminable confusions, can best appreciate the glory of the Mosaic statement.

Let us take it word by word, keeping strictly to the exactness of Hebrew usage.

"In the beginning." Fanciful interpreters have endeavoured to draw mystical and cabalistic meanings from so simple a phrase as "in the beginning." A Chaldee targum borrows an idea from the 8th of Proverbs, and interprets them of Divine wisdom—בְּחֹכְמָה (bĕ-chok-māh)—By wisdom God created the heaven and the earth. The opening of St. John's gospel has been supposed to give a meaning of remote eternity to the words, "In the beginning was the Word." Whereas, St. John simply declares that "Before anything had a beginning the Divine Word was,"—i. e. pre-existed. The Jewish Cabala anagrams the letters בראשית into א | תשרי | 1st in the 1st of Tisri, making thus the origin of the world about our September; so that Adam might have ripened fruits ready for him. Such interpretations are unworthy of serious refutation. If we look to the usage of the Hebrew language, there is no mystery in the words: they simply mean at first, and so declare that all things had a beginning by the creative power of God: "Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear." (Heb. xi. 3.) "He spake, and it was done: He commanded, and it stood fast." (Ps. xxxiii. 9.)

"God created the heaven and the earth." Here again inattention to the *usus loquendi* has caused the loss of much invaluable truth. To create has been interpreted to mean giving mere existence out of nothing, as if Moses taught that at first God gave existence to the materials of heaven and earth, and then framed them in an admirable order. The Greek Chaos was a subsequent corruption, and not an original

doctrine : there is not a trace of it in Scripture. The contrary doctrine is taught here. Create is a term used three times in the Mosaic cosmogony, as given in the first chapter of Genesis :—1. For the origin of all things. 2. For the great whales and the moving things of the waters. 3. For man. If we examine the *usus loquendi* of the word, we arrive at the following conclusions :—

1. In the simple form of the word it is never applied to the work of man or of any creature.
2. Never to God's work in process.
3. Only to God's work in a complete state.

Hence to create heaven and earth is a Divine work giving perfect existence to heaven and earth. Whether God's work was instantaneous or progressive, the word *create* was applied to it only when complete, and not before. Thus it is said "Male and female created He them." That work was progressive. God took dust and formed it into a human body : He then breathed into that body the breath of life. A man was thus formed : after that a woman was made out of the man. The man was said to be formed, the woman to be builded : but when completed, and only then, it is said "Male and female created He them."

The land animals are not said to have been created, and yet the aquatic ones are. The reason appears to me to be that the aquatic animals are perfect in their kind, but the land animals are not : man is their perfection and head.

Another usage of the word is in the Pail or intensive form, in which it is employed for destruction. The corresponding Sanscrit word has the same application, on the ground that only he who has the power to create has power to destroy : "He can create, and he destroy." In this, or an analogous sense, the word is three times found in Scripture. In the Hiphil, or causative sense and form, the word is once used, and only once. It is rightly rendered to make fat, 1 Sam. xx. 29 ; and so, as an adjective, we have בָּרֵי (b'rēe) fatness. Now if בָּרָא (bārā), to create, is never elsewhere used for any creature work, nor for giving existence in a chaotic state, nor for any work in process, but only for God's work when completed, surely the *usus loquendi* requires us to believe that it is similarly used here. We thus, on the strictest principles of philological investigation, arrive at the conclusion that the Mosaic statement is :

1. That all things had a beginning.
2. That their existence was the work of God.
3. That they received not a chaotic but a completed existence from Him.

Our resurrection is to be in a moment, in the twinkling of an eye. That glorious creation was similar. "He spake, and it was done."

Having given us this magnificent account of the creation of all things, Moses proceeds to detail facts concerning this earth. His first statement is, "And the earth was without form, and void." It is nowhere said that heaven was without form, and void. The statement is limited to this earth. Upon the meaning of the phrase "without form, and void," the whole question of the Mosaic cosmogony turns. Happily Scripture leaves us in no reasonable doubt. The phrase occurs but three times in Scripture, and in two of these it undoubtedly means ruined. The first is Isa. xxxiv. 11, where the words are rendered confusion and emptiness:—"The Lord shall stretch out upon it (Idumæa) the line of confusion, and the stones of emptiness."

The second is in Jeremiah's lamentation over the ruin of his country:—"I beheld the earth, and lo it was without form, and void" (iv. 23).

Although the whole phrase occurs but three times, the principal word *תהו* (*thohu*), occurs twenty times, and with the same results. Instead of translating the word, I shall retain the Hebrew one in two remarkable quotations: Isaiah describes the ruined city of Jerusalem as "the city of *thohu*" (xxiv. 10).

He declares respecting God's creation of this earth, "He did not create it *thohu*" (xiv. 18). It is true that these words are rendered in most versions as if there were an ellipsis, *לתהו* for *תהו* (*le thohu*), in vain; but this is a conjectural addition. The original words are *לֹא תָהוּ בְרֵאשִׁית* (*lō thōhu berā'āh*), He did not create it (the earth) *thohu*.

Let us insert this declaration of Isaiah into the Mosaic statement.

In the beginning God created the heaven and the earth.

And He did not create the earth *thohu*, and the earth was *thohu*.

Is it not evident that the *thohu* condition of the earth was a ruined one, and not its original state?

In the Zohar, as quoted by Ludovicus Capellus, there is a comment remarkably confirmatory of these views:—

EXCERPTA ex Zohar, fol. 24, 6, ad locum Genes. ii. vers. 4, 5, 6.

1. Hæ sunt generationes cœli et terre, &c.

SELECTIONS from the Zohar, fol. 24, 6, on Gen. ii. 4-6.

1. These are the generations of heaven and earth, &c.

Ubi cumque scribitur אלה (nempe cum תולדות profanantur priora, (seu precedentia). Et hæc sunt generationes הוה הוה quæ significantur vers. 2. Terra erat הוה הוה. Illa sunt de quibus dictum est quod Deus benedictus creavit mundos et destruxit eos, et propterea terra erat tohu va-bohu, desolata et vacua.

Wherever there is written אלה (ail-le) [these]—e.g. with תולדות [thôlédôth] the former words are put aside.

And these are the generations of tohu which are signified in ver. 2. The earth was tohu and bohu. These are the words of which it is said that the blessed God created the worlds and destroyed them, and on that account the earth was tohu and bohu, desolated and empty.

The learned critic follows up this extract with an interesting statement of the cabalistic, or rather mystical, interpretations by the Rabbins. These do not belong to our present purpose, which is simply to show that Jews—at or near the time of our Lord—held that the *thohu* and *bohu* condition of the earth was not its primary, but its ruined state. Were it needful, I could produce many similar Rabbinical interpretations of *thohu* and *bohu*, proving that the words mean ruined.

Let us now examine more in detail the important passage in Isa. xlv. 18. Even without departing from the received versions, one result is undeniable—that *thohu* means ruin.

“For thus saith Jehovah that created the heavens: God Himself that formed the earth and made it: He hath established it; He created it not in vain. He formed it to be inhabited. I am Jehovah, and there is none else.”

We have here a distinctive use of created, made, formed, established, which is full of instruction.

He created the heavens, for there is nothing said anywhere of a process in their construction.

He formed the earth, because a progressive formation is detailed.

He made it—i.e. He put it together, as a workman does with materials ready to his hand.

He established it—i.e. He gave it such an existence as cannot be annihilated.

He did not create it in vain (or for *thohu*).

This rendering supposes an ellipsis of a preposition, and in that sense the words would mean: He did not create it that it might go to ruin; which shows that *thohu* means ruin; and also that it does not describe the state of the earth at its creation. These observations result in the same conclusion as the more literal rendering of the passage: “He did not create the earth *thohu*.” This latter is the rendering of Bishop Walton:—

“Non inane creavit eam;” and also of Vitringa:—

“Non creavit eam rem inanem.”

Having thus, I trust, fixed the meaning of *thohu* and *bohū* as ruined, the next statement is, "And darkness was upon the face of the deep."

Remembering that *thohu* and *bohū* mean a changed condition, the consequent darkness would be a change from a former state of light. If Jeremiah describes the ruined state of his country by saying, "I saw the heavens, and they had no light," Isaiah predicts of the future, "Arise, shine, for thy light is come, and the glory of the Lord is risen upon thee."

After this darkness upon the face of the deep, God said, "Let there be light, and there was light."

In this earlier description we read of the face of the deep—*i.e.* of the broken-up crust of the earth—furthermore: "The Spirit of God moved upon the face of the waters." Here it is intimated that the deep was covered with waters. Consequently, the whole surface of the earth was then covered with waters. Afterwards God said, "Let the waters be gathered into one place, and let the dry land appear." In the 104th psalm we learn that this was effected by the agency of volcanic action:—"At Thy rebuke they fled; at the voice of Thy thunder they hasted away. The mountains ascend—the valleys descend into the place which Thou hast provided for them."

In all volcanic countries the underground volcanic noises are called thunder. Now, according to this Mosaic statement, the upper strata of mountains must be aqueous; and so they are: but if aqueous, those strata must have been formed when the mountains were level, and so the ocean waters would cover them. This is exactly accordant with true science. But there is another remarkable statement. We have to resort to geology to account for the structure of the crust of the earth; but geology can tell us nothing of the production of life. Moses does: "The Spirit of God moved upon the face of the waters." For what? Let the 104th psalm tell:—"Thou takest away their breath; they die, and return to their dust. Thou sendest forth thy Spirit; they are created, and Thou renewest the face of the earth." (Ps. civ. 29, 30.) "Moved" is a word which occurs three times: here, and for an eagle fluttering over her young (Deut. xxxii. 11); and for the shaking bones of a drunken man (Jer. xxiii. 9).

That brooding movement of the blessed Spirit was instilling life into the yet unborn animal creation which was in embryo in the earth. It was a Divine operation in the darkness. We might subject the remainder of the chapter to the same

scrutiny with the same results. Everything is in accordance with true science. I may summarize them thus:—

1. In the beginning God gave a perfect existence to the earth.
2. By some cause here unexplained the earth became ruined.
3. The character of that ruin was a crust broken up, the mountains levelled, the waters covering the whole surface of the earth, the previous light turned into gross darkness.
4. The Holy Ghost brooding over the whole, instilling a renewed life.
5. Through six successive stages God restored the earth.

These five principles are in exact accordance with observations and natural science. They are the only true account of geological phenomena which the world has yet seen.

They involve also another subject of inquiry and thought, which the non-theistic philosophers of the day would do well to ponder.

Why all that ruin to which all geology bears witness?

The Bible furnishes a clue, if not an answer:—

If there was sin before Adam, there was ruin before Adam. May not the one have been connected with the other; and so this earth have been the battle-field between sin and holiness, —the theatre of probation—a spectacle to angelic worlds?

The limits of this essay do not permit me to apply the same principles to the narrative of the Noachic flood, with all its interesting questions of the redistribution of animals, and of the families of men. That Mosaic narrative throws a flood of light upon these questions. Without it we could not tell—

1. Why there are no historic nations south of the Torrid Zone.
2. Why there are no land animals south of the same zone which could not have crossed that zone.
3. Why, with regard to language, philologists have been compelled to divide mankind into three great divisions.

I pass on, however, to another aspect of the scientific interpretation of Scripture: its suggestive character in the scattered notices of natural phenomena. It is often said that the Bible was not written to teach science, and therefore we need not look for infallibility in its scientific allusions. This principle would degrade the sacred volume to a human level. If the book be divine, all its statements must be true. The word of God, like the works of God, does not present truth in a scientific method but in separate phenomena, leaving to men the task of arrangement and systematizing. As in the one, so in the other, we approximate to a perfect system from age to

age. Each separate statement or phenomenon is true: the human arrangement is necessarily imperfect in some of its parts. Each additional discovery modifies the previous human arrangement. Astronomy, geology, and chemistry are continually furnishing us with examples. So our Lord says of the Bible: "Every scribe which is instructed unto the kingdom of heaven, is like unto a man that is an householder, which bringeth out of his treasure things new and old." The new things had always been in his exhaustless treasury; they are gradually brought out. The positive statements of the earlier knowledge are not contradicted by new discoveries. They are seen in new lights, and are filled with new lessons. In this aspect of the Bible, it is most blessed for the mass of mankind that the believer may be perfect in his faith, although unskilled in dogmatic theology. He who comes to the Holy Communion with a loving, trusting heart may be utterly unskilled in the doctrine of the Real Presence and yet realize in his happy experience Incarnate Deity in the depths of his spiritual consciousness.

Laying aside all thoughts of deriving a system of natural philosophy from the Bible, it is most interesting and instructive to examine its innumerable suggestive hints. I shall select a few examples.

Ps. lxxviii. 15, 16.—"He clave the rocks in the wilderness, and gave them drink as out of the great depths. He brought streams also out of the rock, and caused waters to run down like rivers."

In a poetic passage such as this one would hardly expect the strictness of scientific phraseology, and yet it is here, with marvellous correctness.

We have two words for rock:—

צָרִים (*tzürēem*), the generic word for rocks as lying in strata.

סֶלַע (*selang*), a projecting rock.

The great source of the waters was from the underground strata, which contain such abundant reservoirs of water, described here as the great depths, רָבָה תְּהוֹמוֹת (*thē-hō-mōth rabbāh*), a noun plural, feminine, with an adjective singular; the feminine plural indicating their multitudinousness, the adjective singular their collectiveness. The strata were cloven that these waters might rise up. This is the principle of the modern Artesian well. The other word (*selang*) is a projecting rock such as Moses could strike. From that rock flowed the smaller streams, from which they drank immediately, and the larger river which followed them: "They drank of that Spiritual Rock that followed them: and that Rock was Christ." (1 Cor. x. 4.)

The same accuracy is in Ps. cvi. : 41—"He opened the rock (צִוּר, *tzōōr*, the stratum of rock), and the waters gushed out: they ran in the dry places (בְּצִיּוֹת, *batzzyōth*,—in arid places,—not merely a wilderness, where pasturage might be, and therefore moisture)—a river." Again, let us look at a single metaphor in Job xxxvii. 16 :—

"Dost thou know the balancings of the clouds? the wondrous works of Him which is perfect in knowledge?"

The mysterious Elihu, like the ancient observers of the phenomena of nature, saw a greater evidence of Divine contrivance and wisdom in a single cloud than men who looked upon them collecting and dissipating, but did not reflect upon one of their greatest marvels—why are they like the dishes of a balance, rising and falling? Elihu does not tell how or why the clouds so rise and fall, but he felt that they had something to do with weight, and he describes it as a wondrous work of God, to be sought out by man. How many ages intervened before Galileo discovered the cause.

Three remarkable passages in the 40th chapter of Isaiah illustrate the scientific accuracy of even the poetic language of Scripture:—

"Who hath measured the waters in the hollow of His hand, and meted out heaven with the span, and comprehended the dust of the earth in a tierce, and weighed the mountains in scales and the hills in a balance." (v. 12.)

"It is He that sitteth upon the circle of the earth." (v. 22.)

"Lift up your eyes on high, and behold who hath created these things, that bringeth out their host by number: He calleth them all by their names, by the greatness of His might, for that He is strong in power: not one faileth." (v. 26.)

How remarkably all these words agree with the fullest discoveries of science. If this did not anticipate them, the science of the Hebrews far exceeded anything that we know of that of ancient nations.

The waters of the ocean are measured—מִדָּד (*mā-dād*) the proper word for exact measurement. Let us compare this statement with the law of evaporation, as given in Eccl. i. 7, and with the unity of all the seas in one ocean in Gen. i. 9; and we can form a just estimate of the scientific teaching of inspiration.

"All the rivers run into the sea; yet the sea is not full: unto the place from whence the rivers came, thither they return again."

"Let the waters under the heaven be gathered unto one place, and let the dry land appear... The gathering together of the waters called He seas."

It was God who declared that the waters of the whole earth made one great ocean, and that it was subdivided into seas. Isaiah was inspired to declare the exact adjustment of the proportion of land and water.

Heaven is meted out with a span.

The words here used express the utmost accuracy. A span, זֶרֶת (*zereth*) is exactly the same as our own span, the space marked out by the extended finger and thumb.

Meted is תִּכַּן (*tik-kain*) applied to exact weight or measurement, whether morally or materially:—

“The Lord weigheth the spirits.” (Prov. xvi. 2.)

“By Him actions are weighed.” (1 Sam. ii. 3.)

“Is not my way equal?” (Ezek. xviii. 25.)

“He weigheth the waters by measure.” (Job xxviii. 25.)

“They gave the money, being told.” (2 Kings xii. 11.)

What a glorious idea Isaiah gave of the omnipotence and the skill of God! The, to us, immeasurable spaces of the heavens are measured by God's span, and accurately arranged. The stars of heaven have their assigned places. Job knew that a similar adjustment is in the wind and water of the earth. “To make the weight for the winds: and He weigheth the waters by measure.”

He comprehended (קָלַל *kāl*, completed) the dust of the earth in a tierce (שְׁלִישׁ *shālīsh*, third part)—*i. e.*, the arable part of the land is one of three great divisions:—

1. The mountains. 2. The arid land. 3. The arable land.

He weighed the mountains in scales and the hills in a balance.

He made an exact adjustment of the relative gravity of the mountains and hills to the whole crust of the earth.

There is here a suggestion which far exceeds our present scientific knowledge. It will yet be found to contain a wonderful amount of scientific truth.

“The circle of the earth” is an expression which shows that the Hebrews did not believe the earth to be a four-cornered flat thing, but a globe.

The last statement is about the stars of heaven.

God created them, *i. e.* gave them a perfect existence.

They are a host—צָבָה (*tzābā*) an orderly arranged multitude.

They are numbered, as if written down in a book in exact computation.

They are continually brought forth—מוֹצֵא (*mōtzēē*, caused to go).

They are called by names.

God knows and cares for every one of them.

A scientific system is not given methodically here ; but how marvellously all the statements agree with our profoundest knowledge of science, and even give important suggestions beyond our present knowledge.

The book of Job and the Psalms are full of similar statements. Indeed, the old Testament Scriptures throughout would well repay scientific investigation. I must, however, remember my limits.

Those who cavil at the scientific and natural statements of Scripture, have shown the most discreditable inaccuracy. Two examples are furnished from the ostrich and the hare.

In Job xxxix. 14—16, God says of the ostrich, "Which leaveth her eggs in the earth, and warmeth them in dust, and forgetteth that the foot may crush them, or that the wild beast may break them. She is hardened against her young (בָּנִים *bā-nēem*, offspring), as though they were not hers: her labour is in vain without fear."

The only statement here is about the want of care of her eggs, which is perfectly true. The cavillers bring examples of her care of her fledged young ones, of which the passage says nothing. Birds in general are remarkable for building nests for their eggs, and for carefully sitting upon them to give them warmth. They select such places as will shelter them from injury. The ostrich does nothing of that sort, but deals with her eggs exactly as is here described.

The second case is that of the hare chewing the cud.

Our English expression of chewing the cud implies that the food is cut a second time. The Hebrew is simply to bring up a cut thing, without any reference to chewing, and this the hare does. The inquiries, therefore, about the formation of the teeth of the hare were simply out of place.

Even amongst careful commentators the want of accuracy upon those subjects has caused much misapprehension and difficulty ; *e.g.*, the curse upon the serpent in the narrative of the fall.

Scripture distinguishes serpents into two great classes : those who spring at their prey, and those who crawl upon the ground. The former are called flying serpents, the latter serpents of the dust.

Many commentators have conjectured that the serpent of which Moses speaks had originally legs or wings, and that he was deprived of these and caused to go upon his belly. Moses says nothing whatever about legs or wings ; so that all the difficulty is one caused by mere conjecture. The serpent there spoken of had once been able to spring at his prey like the

flying serpents. He was deprived of the elasticity of the flying serpent, and degraded to the class of serpents of the dust. By this judgment his food became soiled with dust instead of the pure condition in which the springing serpents have theirs. There is thus nothing whatever unnatural in the Mosaic narrative.

Another example of the inaccuracy of commentators is in the statement about the window in Gen. vi. 16. "A window shalt thou make in the ark, and in a cubit shalt thou finish it above."

It is very remarkable how long an error remains uncorrected. The Vulgate stands alone amongst all the ancient versions in rendering the word צַהַר (*tzōhar*), a window.

The LXX. renders the word as an active participle—ἐπισυνάγων—jointing; but the grammar of the passage requires a noun, and not a verb.

The Chaldee Targum, the Syriac, Samaritan, and Arabic versions, use words which signify shining, but none of them give the same word that is used for the window which Noah opened to let out the raven and the dove.

The word occurs twenty-five times, and is everywhere else rendered noon, noon-day, or their equivalents.

Yet with all this weight of testimony, the modern versions follow the incorrect rendering of the Vulgate. Even so eminent a critic as Gesenius has fallen into two or three errors in his short article upon this word. He gives:—

צַהַר lumen. Gen. vi. 16. צַהַר לְפָנֶיךָ צַהַר לumen facias arcæ, h. e. fenestras, Gr. φῶτες (cf. viii. 6). More collectivorum cum fem. constr., unde צַהַר לְפָנֶיךָ אֶל־אֲרָבָה usque ad ulnæ longitudinem facias eas (fenestras).

Here Gesenius acknowledges the word to mean light. The noun is singular and masculine, and yet he grammatically deals with it as if it were feminine plural. He was compelled to do so by his false view of the meaning of "in a cubit shalt thou finish it above," because the pronoun is feminine. Had he taken the feminine noun ark as the antecedent, all would have been clear. "In a cubit shalt thou finish the ark above;" i. e. thou shalt give a rise of one cubit to the central line of the roof, so as to cause the water to run off.

Gesenius falls into another mistake in referring to Gen. viii. 6 as proving that the word *tzohar* means a window, for in that place *tzohar* is not used, but *challon*, the ordinary word for window. The Greek word there is not φῶτες but θυρίδες. He also errs in giving φῶτες, which means men, instead of φῶτα.

It is thus that an error once introduced, often continues for

centuries. In the interpretation of Scripture, many errors would be avoided, and much difficulty removed, if commentators were more careful in examining Scripture's own use of its own phrases. We have another example from the New Testament. Mediæval Europe was so restricted to the use of the Vulgate, that its phrases tinged the theology of the Western Church to a greater degree than is commonly supposed. Protestant and Romish writers have almost unanimously accepted the meaning of "the gates of hell" to be the power of the devil and his agents. It is utterly impossible to assign such a meaning to the phrase, on any true exegesis: "Hell," ἄδης, was never the abode of Satan. It is limited in Scripture to departed spirits. The gates of Hades must therefore mean the entrance into that place. Accordingly, Hezekiah speaks of the then probably fatal results of his sickness, as, "I shall go to the gates of Hades" (or *Shēöl*). How strangely his fellow-countrymen would have felt could they have heard a mediæval theologian asserting that Hezekiah meant that his boil would send him to the devil!

It is time, however, to draw to a conclusion. I trust I have pointed out the true method of the interpretation of the language of Scripture in general, and inclusively of its scientific language. I trust also I have shown that the Bible can bear the strictest scrutiny, provided its scrutinizers be themselves qualified for the task. It is indeed God's infallible word. Its statements and teaching connect themselves with every department of human knowledge, and every possible subject of human thought. In morals, in legislation, in philosophy, in science, in general literature, and human history, it is like the sun in the solar system, casting bright beams of light upon them all. It tells man whence he has come, whose he is, how he is to live in this life, and what is the hope of blessedness in the life to come. God in Christ and Christ in God are gloriously manifested in its holy pages; and man in Christ and Christ in man are seen in all the truth of resurrection humanity, filled with all the fulness of God. May we all more reverentially study its whole teaching, and under the guidance of the ever Blessed Spirit be kept in its holy paths onwards and upwards to the heavenly blessedness.

On the motion of the CHAIRMAN, a vote of thanks was passed to the author of the paper.

Rev. Dr. THORNTON.—I feel rather at a disadvantage in having to criticise a paper with the main object of which I so much agree. It is not necessary for me to subject the statements it contains to a minute criticism, and to point out where I differ from them; but there is considerable doubt in my

mind as to the correctness of some of Dr. Baylee's derivations. For instance, he gives the derivation of the word earth, *eretz*, from *rootz*. Now, I, on the other hand, am inclined to think that *ara* is the important root of the word; and if you compare it with the Aramaic, and also with the Greek word *εραζε*, I think that impression will be confirmed. Again, in obtaining the derivation of *thohom*, or deep, I should commence with the word *thohu*, which is afterwards so much discussed by Dr. Baylee. But it is hardly necessary to follow out this minute criticism. I think Dr. Baylee wants to point out that the language of Scripture is very peculiar, and that to get at a right understanding of it we must divest ourselves of all preconceived notions, and consider what the words of Scripture in their first literal and grammatical meaning do imply. We must go to the original words themselves, and when we have ascertained their etymological meaning, as well as their meaning according to the context, then, and not till then, can we approximate to what the Scriptures wish to reveal. That I take to be the view with which Dr. Baylee starts; and it is in consequence of neglecting that rule that a great many scientific men have been led to make attacks on the Scriptures, which have proved to be fatal to themselves; because they have been attacking, not what the Scriptures really say, but what they have supposed the Scriptures to say. I brought this subject before you on a former occasion, in a paper "On the Logic of Scepticism;" but I think Dr. Baylee may not have read our *Journal of Transactions*, or studied some of our previous papers and discussions. The question on that occasion was discussed, and a valuable interpretation of one disputed passage was supplied by Mr. Warrington. In this paper I think Dr. Baylee assumes that we are unacquainted with the fact that there is a science of comparative philology. One of the first papers delivered before this society was upon that subject, and I think it is scarcely fair of Dr. Baylee to teach us that which we may be fairly presumed to know already. He gives us a theory as to the primeval language, which he considers to have been Biblical Hebrew, but on that point I beg to differ from him. I am disposed to think that the language which it pleased God to give to us first was a language very similar to Chinese—a monosyllabic language capable of inflection and all sorts of richness, but still originally monosyllabic, derived from imitation of the sounds of animals, or from the result of man's action on himself, and on all around him. Dr. Baylee, however, apparently considers that the Hebrew tongue was revealed to mankind, and that the Biblical Hebrew in which the Pentateuch was written was exactly the language in which Adam conversed with Eve. If I went at any length now into the subject of comparative philology, I should have to detain you for a long time, and I fear I should exhaust your patience. Although I have made these criticisms on the paper, I cordially agree with the principle laid down by Dr. Baylee that we must be very careful, in interpreting the Scriptures, to ascertain simply, and without reference to any preconceived notions, what the words of the Scriptures do mean, and to adhere to that interpretation, and to that alone, of the Word of God.

Mr. WARRINGTON.—I must say I do not agree with the view which

Dr. Thornton appears to take, that, when the author of a paper comes before us and makes several mistakes, we should let him off easily, because we happen to agree with some of the general principles which he lays down. If we find him making a large number of mistakes in his paper, that tends to the presumption that there may be something wrong in his conclusions, and we ought therefore to examine the foundations all the more carefully before we commit ourselves to those conclusions. Dr. Baylee gives us a curious argument to prove that Hebrew is the primeval language. He tells us that the names of Adam and Eve, of Cain and Abel, are all significant in Hebrew, and that they are not so even in the cognate languages. In order to test the validity of these derivations, assumed or stated, I turned up the highest authority I had access to—Fürst's Hebrew and Chaldee Lexicon. I looked at the root which lies at the foundation of Eve, and I found it quite as significant in Persian, Greek, Arabic, Syriac, and Sanscrit. The root of Noah also was to be found in Sanscrit, in German, and in Arabic. I could not trace the root so well in the names of Adam and Abel, but I found sufficient to tell me that there is no evidence, from the peculiar significance of these names in Hebrew, that Hebrew was the language originally spoken. Then I find a very extraordinary derivation to which Dr. Baylee has committed himself. He tells us that Adam is derived from *dama*, to resemble, but any one who looks at the second chapter of Genesis will see at once that as God formed man out of the *adamah*, or ground, so he afterwards called his name Adam. It is plain that that was the derivation. In the Aryan tongues you get the same derivation for the name of man—in Latin, *homo*, a man, has the same root as *humus*, the ground. I pass over Dr. Baylee's derivation of earth and deep, but a little further on I find him giving *nephesh* as meaning the bodily frame. Now, that word is never so used in the Scriptures. It means simply a breathing, and I cannot conceive how Dr. Baylee can have taken it to mean a bodily frame. Passing from that point, we come to Dr. Baylee's criticism upon the word *bara*, to create, and we are told that that word is only used as a sign of work in a complete state. It would have been worth Dr. Baylee's while if he had turned to a passage in Isaiah, where the word "create" is used synonymously with "make" and "fashion." This is remarkable, because it upsets Dr. Baylee's rule that in the Scriptures those things are said to be created which are perfected, and those things made and fashioned which are incomplete. Here we find, that God *made* the light and *created* the darkness: He *made* the good and *created* the evil. Would Dr. Baylee say that darkness and evil are complete states, and that light and good are imperfect? Yet that is the result of his criticism on the word *bara*. Then he says that the word create is only used with regard to man and woman when both of them have been made, and so the work of their creation completed, the words "made" or "formed" being used in the separate creations of each of them. But if he had quoted the whole text instead of only half of it, he would have refuted himself; for the verse commences by saying, "God created man in his own image,"—the word being used in the singular before "man" alone, before it is put

before "them." Then as to the word *thohu*. It is true that it is used in a sense signifying ruin, but it also means emptiness and desolation, and it does not follow that there could have been no emptiness and desolation arising from other sources than ruin. In Isaiah the usage of the word *thohu* differs considerably, and, looking through the latter half of the prophecy of Isaiah, which some think is by a different hand, I find six places in which *thohu* is used as meaning simply nothing,—nothingness, without the slightest trace of ruin. It also means empty, worthless. Thus the passage which Dr. Baylee quotes from Isaiah may be interpreted to mean that the earth was not created for nothing—that it was not created desolate. If the earth was not created for nothing, for what was it created? In order that it might be inhabited. Isaiah, then, is comparing this *thohu* with the end of creation as something different. God did not create the earth in order that it might remain empty, but that it might be inhabited; which leaves out of the question whether the original condition of the earth was one of emptiness or not. Further on we have a remarkable criticism upon thunder, with the suggestion that it is nothing more than volcanic action. We are told that in all volcanic countries underground volcanic noises are called thunder, and that in Hebrew poetry thunder is represented as the voice of God:—"At Thy rebuke they fled: at the voice of Thy thunder they hasted away." Taking these several points of criticism together, then, we shall have to alter Dr. Baylee's five principles as follows:—"1. In the beginning God gave existence to the earth. 2. The earth was in a state of emptiness and desolation. 3. The character of that emptiness and desolation was that water covered the whole face of the earth. 4. The Holy Ghost was brooding over the whole, instilling life into it. And, 5, In six stages God fashioned (not restored) the earth." Then we come to the flood, and we are told that the flood accounts for the fact that there are no historic nations south of the Torrid Zone. But Dr. Baylee should first have looked at the map to see what field there was for their existence there. There is such an extremely small portion of dry land there that it is hardly reasonable to suppose there would be many historic races upon it. I have also yet to learn the fact, stated by Dr. Baylee, that philologists have been compelled to divide mankind into three great divisions in order to bear out the account of the three sons of Noah. Then we pass on to the reckless way in which Dr. Baylee treats the words *tzureem* and *selang*, as evidences of strict scientific phraseology in the Scriptures. I fail utterly to see the force of his argument, when I know that the word which he says signifies rocks lying in strata also means stones lying in a brook. We are told also that there is a very remarkable agreement between the fortieth chapter of Isaiah and the discoveries of modern science. But do we know as a fact from any scientific discovery that the waters have been measured, that the heavens have been meted out, that the dust has been measured, and that the mountains and hills have been weighed? I suppose my scientific knowledge must be very backward, but I never heard of any scientific discoveries which proved these things. I fail utterly to see how the statement in the twelfth verse comes in

contact with science at all. The idea which Isaiah had was to give the people some notion of the immensity of God. The waters of the earth were no more to Him than a few drops were to a man, which he could take up in the hollow of his hand, and the earth itself no more than a span. We are told that "He comprehended the dust of the earth in a tierce," because that means a third part, and because the land was divided into three parts, of which the arable land was one. I suppose, if the prophet had written in English, and had used the word "quart," instead of tierce, Dr. Baylee would have discovered that the earth was divided not into three, but into four parts. It is so easy to adjust things, so as to meet your preconceived theories! I must confess that I do not see what is the aim or object of Dr. Baylee's paper, and, not seeing it, I shall not venture to offer any remarks on that head. But whatever it is that he proposes to prove, it seems to me that we shall require fuller and sounder evidence before we can receive it as truth.

Dr. GLADSTONE.—I did hope, from the reputation of the author of this paper, that we should have heard something of great interest to-night. I have often paid attention to this subject, and ever since I was a little boy I have had a great fondness for philological research. I cannot discuss the paper before us at all minutely because of my small acquaintance with the Semitic languages; but wherever I could form an opinion upon it I have found it wrong. When, for instance, we hear it said that Hebrew, or something like the Hebrew of the Bible, was the language of Adam and Eve, it is utterly impossible for me to conceive that any language with grammatical inflections was spoken at that time. I will not go into the various points which have already been dealt with; but my notions as to the philology of Dr. Baylee were at once set at rest when I came to the passage which explains that the Noachic flood has compelled philologists to divide mankind into three great divisions. I suppose the three great divisions into which philologists would divide mankind would be that in which monosyllabic languages are spoken, that in which languages having the syllables agglomerated together are spoken, and that in which languages having grammatical inflexions are spoken. But what all this can have to do with Shem, Ham, and Japhet I cannot possibly conceive. Dr. Baylee's remark can only arise from some idea that has passed out of existence a long while ago. I will not detain you with many remarks upon a matter into which Mr. Warrington has already gone so fully; but I should like to say a word upon the suggestion that if we closely examine the words of the Scriptures, we shall be able to arrive at the conclusion that the sacred writers had some knowledge of natural phenomena, and that that knowledge is in some way embraced in the very words they have used. If that were so, it would be a very interesting fact, and we should have scientific prophecies somewhat analogous to historical prophecies. But if that were not the case, and the sacred writers had only used the ordinary language of their own day, then we have not an evidence of the Divine authorship of the book, but we may have a proof of the antiquity of the book, and a means for looking into the way, and examining

into the period in which certain books were written. I have looked a little into that matter, and I confess it appears to me that Dr. Baylee's view is not carried out. Take that text from the fortieth chapter of Isaiah—"It is He that sitteth upon the circle of the earth." Now, in order to make that square with modern science, the modern idea has first of all to be put into the text, and then to be dragged out of it. Any one looking at the earth knows that it is a circle ; but that does not necessarily mean a sphere. There are many passages into which it is not at all difficult to put the ideas of modern science. Take that text which Dr. Baylee says states the process of evaporation—"All the rivers run into the sea, yet the sea is not full ; unto the place from whence the rivers came, thither they return again." But it is quite possible that at the time that was written there may have been some other theory as to the circulation of the waters between the sea, the rivers, and the air ; and possibly some of these ancient peoples knew more about these things than we give them credit for. But, then, we must look at the other side of the argument, and we find that expressions are used which, unless they are simply figurative, are altogether wrong. We must take all the evidence together, and we are led to the conclusion that the ordinary figurative language has been applied to the phenomena of nature, and in the few cases where the language will accord with the modern discoveries of science we must either conclude that the ancients knew a little more about these things than we had imagined, or else that the result arises from mere accident. I myself have come to the opposite conclusion to that towards which Dr. Baylee seems to tend in this paper. One thing it is very necessary to do in all these studies. It is very necessary to avoid all pre-conceived notions, and to take the meaning of the words as they are set down, drawing out of each passage nothing more than it actually contains. Take the text, "Let the waters under the heaven be gathered unto one place, and let the dry land appear. . . . The gathering together of the waters called He seas." Is that meant to teach us that all the various seas and oceans are in connection with one another? I am sorry I have been so critical in my remarks ; but we have little to do with this paper except to criticise the various statements in detail, because the general principles laid down are those which most students of the Bible would thoroughly acquiesce in, and which have been frequently laid down before.

Rev. C. A. Row.—In the earlier part of Dr. Baylee's paper there is this passage :—"We are conscious of being a unity. Yet how great a complexity ! Person, in Greek *ὑπόστασις*, expresses a mode of being, without defining the mode." But it does not mean person or personality : there is a broad distinction between the two. Close after that follows the curious statement, "God and man are united in Christ in one consciousness." Now, I look upon that statement with very considerable doubt, for it appears to me to approach the Monothelite heresy—

Mr. REDDIE.—You would not confound consciousness and will ; you would steer clear of that, I suppose ?

Rev. C. A. Row.—Certainly. But if God and man have one consciousness,

I do not see how they are to have two wills. At all events, the assertion is a dangerous one, and I did not like to pass it over without calling attention to it. I agree altogether with the general principle, that we should endeavour to ascertain the precise meaning of the words of the Bible as far as possible, and I only regret that Dr. Baylee has not always stuck to his text. There is one passage near the end of the paper which I cordially agree with, and that is where Dr. Baylee says, "Protestant and Romish writers have almost unanimously accepted the meaning of 'the gates of hell' to be the power of the devil and his agents. It is utterly impossible to assign such a meaning to the phrase on any true exegesis." I only regret that Dr. Baylee has not gone further, and demanded the correction of numerous other errors in the English version; and I think the sooner we get rid of some of the notorious ones among them the better—

Mr. REDDIE.—Perhaps you would tell us whether you would substitute, for "the gates of hell," Dr. Baylee's interpretation, "the gates of hades," and then explain the meaning.

Rev. C. A. ROW.—I should substitute "the gates of the grave." In the well-known text I should put it, "The gates of the grave shall not hold My Church down;" and that, I apprehend, is a positive proof of the resurrection.

Rev. Mr. WAINWRIGHT.—I share in the disappointment which has been expressed by previous speakers with regard to the merits of this paper; but still I think scant justice has been done to the author in some of the remarks which have been made. I think the paper would have been more valuable if we had had something more distinct and definite instead of an assumption with regard to the origin of language. The two conflicting and opposite theories—the one of Professor Max Müller, and the other opposed to it by Mr. Farrar—Dr. Baylee quietly passes by, siding with neither of them, and not showing any reason why we should not adopt the one or the other. I go some way with Mr. Warrington in his criticisms on proper names, but I scarcely think his premises would sustain the conclusions he wishes to draw from them. Perhaps the first woman was named Eve or Zoe, because she was ζῶον, a living creature; so called because she was the created spring of life to her descendants. But we cannot make the Scriptures fairly responsible for many of the statements contained in this paper, which assumes, that if the Scriptures be correct, Moses intended to tell us that Hebrew was the language spoken by our first parents. I do not understand that to be stated in the Bible at all. But let me note one circumstance. We know that the founder of the Hebrew people migrated from his fatherland, crossed Mesopotamia and the Euphrates, and settled in that country called Palestine. A short time after that emigration from Mesopotamia we find Jacob going to his unkind father-in-law, and coming back speaking the language of his own family. He designated a certain heap of stones by one name, and his father-in-law called it by another. The one calls it *Galeed*; the other, *Jegar sahadutha*, and the language of the father-in-law is precisely the language of Abraham's father. I do not think sufficient notice has been taken of the

fact that the Phœnician speech—the old Hebrew speech—was not the original speech of the Jewish family. The Phœnician was the language of Palestine when Abraham got there, and he adopted it. If that fact is borne in mind, in connection with the other fact, that an immense space of time elapsed between the creation and the deluge, to say nothing of the time from the deluge to the Abrahamic migration, you have a period sufficiently long to account for any change of language introduced and grafted upon the original stock of speech. But if it should be conclusively established that Hebrew was not the original language of the world, you have not touched the integrity of the Biblical narrative at all. The Biblical narrative does not say that it was the original language, and that has always been too much assumed and taken for granted. With regard to the word *Eve*, I must note, that, whatever was the original name in the original language, Moses, writing for the Hebrew people, would translate the word into its Hebrew equivalent, just as, if he had been writing in Greek, he would probably have called it *Zoe*. What we are required to hold is, that the names of Scripture stand in precisely the same relation to the language of the Bible that they would originally to the language in which they were given. With regard to the meaning of the words, I hold the view of the present Archbishop of Dublin, who, in his work on the Synonyms of the New Testament, says it is in proportion as we are acquainted with them that we get at the precise meaning of the New Testament. Dr. Gladstone has hinted that the Scriptural writers possessed more scientific knowledge than we have credited them with, and that they were scientifically in advance of their times. Now I think that was not the case, and that it is a mistake to suppose anything of the kind. Dr. Candlish put the matter in this way: the problem to be solved was how could the Divine mind, enlightened in everything and comprehending everything, convey to finite minds the revelation of spiritual and moral truth, which should be, with respect to other truths of revelation, the admiration of each succeeding age, and yet should be so couched as to be always in perfect consistency with other knowledge, and so that the expressions of the Holy Scriptures on scientific matters should teach nothing whatever. We are bound to arrive at the conclusion that we see the action of the Divine mind in this, that the language of the Bible was so framed as not to teach anything on these points more than was known at the time, while at the same time it was so large and elastic as to include all the developments of the scientific truths which have come to light. As to consciousness, Mr. Row will remember that the argument for the identity of the resurrectioned body is, that what proves the identity is the consciousness.

Mr. REDDIE.—Strictly speaking, the paper before us is more a paper of exegesis than a scientific paper, but it would be impossible for us quite to exclude papers of this nature from the Institute; and we should bear in mind that it is of great importance to have views of this kind brought forward in a society like this, where they will be met with such opposing criticisms as we have had offered upon the paper read this evening. I find it contains a great deal of what Dr. Baylee has already put forward in his

published books, and it is evidently of the greatest consequence, that if the views are inaccurate which the author enunciates, they should be met with adverse comments such as we have had to-night. But, as Dr. Thornton has already observed, several of the points noticed by Dr. Baylee have been previously discussed here, though Dr. Baylee has not thought it necessary to notice those discussions. I think, however, that any gentleman sending us a paper, should, as a rule, take up the subject from the point at which we have left it, and either accept or refute what appears before to have been put forward; for it is only by pursuing such a course that we can make any way at all. Dr. Baylee has probably had little time at his command, or he may have thought it preferable not to notice our former discussions upon these subjects. In one portion of his paper an extraordinary remark is made about the shape of the earth, assuming that there was once a theory that the earth was a flat, four-cornered body. But the earth, even if supposed to be flat, is obviously circular, and I do not know that those who believed it to be flat ever believed that it was four-cornered—

Mr. WARINGTON.—There was such a theory at one time.

Mr. REDDIE.—Well, at any rate, it is not in Scripture. This is a subject dealt with in some of our previous discussions,* when it was pointed out that in the book of Job the expression occurs “God stretcheth out the north over the empty place, and hangeth the earth upon nothing”—thus showing that the inspired writer considered the earth to be a suspended globe. After the criticisms we have had from Mr. Warington there is not much left to add to the discussion. Dr. Baylee seems to think that the earth is called in the Hebrew “a runner,” because it runs round the sun; but even so lately as his own time, Lord Bacon did not believe this, and I am not at all sure that we shall go on believing it. Some of the author’s arguments are peculiar. For instance, with regard to the sun standing still, he says:—

“By manifesting His power in that remarkable manner over the sun and moon, He gave public evidence, not only to Israel, but to all nations, that He was supreme over all nature. Who can tell the amount of preservation to Israel, and of instructive admonition to all nations, from the Pillars of Hercules to the remote east, which resulted from that one transaction?”

Now who, indeed, can tell? I never knew that any nation except the Jews ever heard anything about it; and I do not know whether even the Talmudists wrote of the sun standing still. One interpretation, however, of the passage is, that God merely suspended the light of the sun by obscuring it in darkness.† With regard to the creation of chaos, I think Dr. Baylee has involved himself in manifest contradictions. In one part of his paper he states that we had light created, and then that *thohu* and *bohū* meant a changed condition, and that the consequent darkness would be a change from the previous state of light. Yet he goes on to tell us that light was created afterwards. But I will not go on with these minute criticisms. I

* Vide *Journal of Transactions*, vol. I. p. 410.

† *Ibid.*, vol. II. p. 162.

am glad the paper has been so thoroughly discussed, as we shall also have Dr. Baylee's reply, and such discussions are a valuable portion of the transactions of this Institute.

The CHAIRMAN.—I agree with Mr. Reddie that the paper has elicited a valuable discussion. There are several, I will not say errors, but apparent misinterpretations in Dr. Baylee's paper. Upon the point as to whether Hebrew is to be considered the parent of all languages or not, I think there is nothing in Scripture to warrant us in coming to that conclusion. On the contrary, the Scriptures themselves, I think, would lead us to consider that Hebrew formed no exception upon the confusion of languages at the building of the Tower of Babel. There may, however, be a question as to what was the nature of that miraculous confusion of tongues.

The meeting was then adjourned.

REPLY BY DR. BAYLEE.

I shall reply to the criticisms on my paper *seriatim* :—

I.—Dr. THORNTON.

(i.) The derivation of the word עָרַץ (*eretz*), from עָרַץ (*rootz*). Dr. Thornton thinks that *ara* is an important root of the word, and if you compare it with the Aramaic and also with the Greek ἔραζε he thinks that the impression will be confirmed.

Reply.—*Ara* could not be the root, inasmuch as there is no such root in the Hebrew; and if there were, the radical ע would be unaccounted for. With regard to the Aramaic, the testimony is decisive that ע or its cognate forms part of the root: *e.g.*—Syriac ܐܪܥܝܢ Chaldee ܐܪܥܝܢ Samaritan ܐܪܥܝܢ. Further, the Arabic is ٤رأ (a.r.d.). The formation עָרַץ from עָרַץ is the ordinary rule of Hebrew formatives: *e.g.*—עָבַד (*eben*), a stone; בָּנָה (*banāh*), to build; אָגַד (*aguddah*), a knot; גָּרַד (*good*), to press. The reference to ἔραζε (earthwards) must be a mistake, for the ζε is merely adverbial, and no part of the root. This reduces the word to ερα, which gives no account of the radical ע. A Greek root would in any case be an improbable original for a Mosaic word.

(ii.) Dr. Thornton says :—In obtaining the derivation of *thom*, or deep, I should commence with the word *thohu*.

Reply.—Adverbs are formed in Hebrew by the addition of ם (*m*), *e.g.*—*annam*, verily. But nouns are not; and unless Dr. Thornton can show some case in which a noun is so formed, he is not at liberty to derive *thom* from *thohu*. On the other hand, the formation of a verbal noun by prefixing ם is the ordinary character of the language: *e.g.*—חָאָה (*tha-a-vah*), desire, from אָה (*a-vah*), to desire; תְּבוֹא (*theboo-ah*), produce, בָּוֵא (*bōh*), to bring forth.

(iii.) Dr. Thornton says :—I think that Dr. Baylee wants to point out that the language of Scripture is very peculiar.

Reply.—The leading object of my observations on the Hebrew language was to deal with it on the same principles as other languages, viz.,—to examine its structure, and its *usus loquendi*.

(iv.) Dr. Thornton thinks that the question of language was fully discussed on a former occasion, when he read a Paper on the Logic of Scepticism ; and that Dr. Baylee cannot have read the *Journal of Transactions*.

Reply.—I read that Paper carefully, but do not think it would be quite in place to criticise it here, as my sole object is to defend my own statements. Nothing was further from my thoughts than to assume any previous writer's ignorance of the science of comparative philology. I am thankful to say I had in view a much higher object.

(v.) Dr. Thornton thinks “that the language which it pleased God to give to us first was a language very similar to Chinese, a monosyllabic language capable of inflection, and of all sorts of richness, but still originally monosyllabic, derived from the imitation of the sounds of animals, or from the result of man's action on himself, and on all around him.”

Reply.—This is a conjecture wholly unsupported by any known language, and at variance with all ascertained facts.

(vi.) Dr. Thornton says :—Dr. Baylee, however, apparently considers that the Hebrew tongue was revealed to mankind, and that the Biblical Hebrew in which the Pentateuch was written was exactly the language in which Adam conversed with Eve.

Reply.—I do not think that God revealed a language to Adam beyond such limits as to enable Adam to receive the necessary admonitions and instructions which belonged to his primeval state. I consider the language of the Pentateuch to be a considerable modification and enlargement of that limited primeval language, retaining its original features.

II.—MR. WARINGTON.

(vii.) Mr. Warington says :—“Dr. Baylee gives us a curious argument to prove that Hebrew is the primeval language. He tells us that the names of Adam and Eve, of Cain and Abel, are all significant in Hebrew, and that they are not so even in the cognate languages.”

Reply.—In attempting to deal with the argument, Mr. Warington could only find two names which he even alleged to have cognates. Mr. Warington's failure in all the rest confirms the validity of my assertion. The following test will enable the reader to judge for himself :—Adam : man in the divine image. Seth : substituted by. Enosh : man in misery. Cainan : lamenting. Mahalaleel : the Blessed God. Jared : shall come down. Enoch : teaching. Methuselah : his death shall send. Lamech : to the smitten. Noah : consolation. Mr. Warington has referred to Persian, Greek, Arabic, Syriac, Sanscrit, and German. Let him write out those proper names in any one of these languages and show them to make a significant sense, and then, but

only then, will he have answered me. The proper names of the Bible are more or less found in all languages, but are significant only in Hebrew ; consequently Hebrew was their original. George is significant only in Greek ; therefore Greek was its original. This is the argument which is left untouched.

(viii.) Mr. Warington objects to the derivation of Adam from *dama*, to resemble. He shows that *homo* and *humus* are closely connected, and so Adam and Adama may be.

Reply.—Adam is not a grammatical derivative from Adamah : the reverse would be the case. On the other hand, I have shown in No. 1 that Adam is grammatically formed from *dama*.

(ix.) Mr. Warington asserts, that *nephesh* is never used for a bodily frame.

Reply.—In Num. xix. 11, *nephesh* is used for the dead body of a man.

(x.) Mr. Warington asserts, that in Isaiah xlv. 18, *bara* (create) is used synonymously with “make” and “fashion.”

Reply.—No expressions of Scripture are tautological.

(xi.) On the passage “the Lord creates evil,” Mr. Warington asks, would Dr. Baylee say that darkness and evil are complete states, and that light and good are imperfect ?

Reply.—“Evil” and “darkness,” in Isaiah xlv. 7, are used for what we call “the ills of life.” God claims them as His creatures, and they are perfectly adapted for their assigned work in His providential dealings.

(xii.) I confess myself unable to see what Mr. Warington meant by quoting the whole verse in Gen. i. 27 : “So God created man in His own image, in the image of God created He him : male and female created He them.” Surely “create” means the same in both parts of the passage.

(xiii.) On the word *thohu*, Mr. Warington thinks he disproves my assertion that it means ruin by producing the following translations of the word :—nothing, nothingness, empty, worthless, emptiness, desolation.

Reply.—Let us substitute those translations for the received one :—the earth was nothing ; the earth was nothingness ; the earth was empty ; the earth was worthless ; the earth was emptiness ; the earth was desolation. Is that not a state of ruin ? I should have been glad if Mr. Warington had answered my real arguments :—1. *Thohu* and *bohü* are found only three times, and twice confessedly for ruin, the consequence of sin : why not the third time ? 2. The ruined state of Jerusalem is described as the city of *thohu*. 3. God expressly declares that He did not create the earth *thohu*. 4. Why is *thohu* never applied to heaven ?

(xiv.) Mr. Warington ascribes to me the idea of confounding thunder with volcanic action.

Reply.—I simply stated the fact that in all volcanic countries the rumbling noise of earthquakes is called thunder, in illustration of “at the voice of Thy thunder they hasted away.”

(xv.) In reply to my statement that there are no historic nations south of the Torrid Zone, Mr. Warington says, “Dr. Baylee should have first looked at the map to see what field there was for their existence there.”

Reply.—In looking at the map, we see Australia, New Zealand, a large part of South America, and part of South Africa. These are not an extremely small portion of the earth, and they are well fitted for the habitation of man. The remarkable facts therefore remain untouched :—1. There are no historic nations south of the Torrid Zone ; and 2. No terrestrial animals are found in the same parts which could *not* have crossed the Torrid Zone.

(xvi.) Mr. Warington further ascribes to me the statement that philologists have been compelled to divide mankind into three great divisions in order to bear out the account of the three sons of Noah.

Reply.—As I neither said nor believe that they did so, I need only refer to the paper for what I did say.

(xvii.) Mr. Warington speaks of “ my reckless way of treating *tzoozem* and *selang* ” : and asserts that the word which indicates rocks lying in strata is also applied to stones lying in a brook.

Reply.—The word is never so applied. But if it were, my illustration of that beautiful passage would not be affected by it. Mr. Warington does not deny that *selang* means a projecting rock such as Moses could strike, and that *tzoor* is the proper name for a rock lying *in strato*. Consequently the exposition remains untouched.

(xviii.) Mr. Warington’s next three questions are somewhat remarkable :—
1. Do we know as a fact from any scientific discovery that the waters have been measured ? Or, 2. That the heavens have been meted out ? Or, 3. That the mountains and hills have been weighed ?

Reply.—With so eminent a scientific gentleman present as the one who occupied the chair, I cannot conceive how such a question should have been left unanswered. Had Mr. Warington asked for the information before the meeting assembled, he would have been saved the trouble of asking the questions and have ascertained that these are facts.

(xix.) I hardly know whether I should give a reply or a rebuke to the manner in which Mr. Warington speaks so lightly of inspiration, in his observations about a tierce or a quart. Surely when the Omniscient One inspired Isaiah to speak of a third part, he meant a third part.

III.—DR. GLADSTONE.

Dr. Gladstone gives a theory of monosyllabic primeval languages, which I have already sufficiently answered. Baseless theories are the bane of true science.

(xx.) On Isaiah xl. 22, “ He that sitteth upon the circle of the earth.” Dr. Gladstone observes, that any one looking at the earth knows that it is a circle ; but that does not necessarily mean a sphere.

Reply.—The general charge against the ancients is, that they thought the earth to be flat. I do not think it natural to say of a man sitting in a vast plain, that he is sitting on the circle of the earth.

(xxi.) Dr. Gladstone asserts that there are only a few cases where the figurative language of Scripture will accord with the modern discoveries of

science, and even ascribes error to some expressions of Scripture unless figuratively taken.

Reply.—This is a statement which I am grieved to find uncorrected in a meeting of the Victoria Institute. It is wholly contrary to fact. It is no answer to the scientific accuracy of Genesis i. 9, and Eccl. i. 7, that there may have been some other theory at that time. The true question is, do the inspired words there employed agree with true science?

IV.—Rev. C. A. Row.

(xxii.) Mr. Row asserts that the Greek *ὑπόστασις* does not mean person or personality, and that it approaches the Monothelite heresy to say that God and man are united in Christ in one consciousness.

Reply.—Were our translators wrong in rendering *ὑπόστασις* person in Hebrews i. 2 :—“The express image of His person”? Or the ecclesiastical statement :—“*Three Persons and one God*”?

V.—Rev. Mr. WAINWRIGHT.

(xxiii.) He asserts that Abraham learned Phœnician in Canaan, and gave up his native language.

Reply.—The only proof he offers is that Laban used an Aramaic dialect. I think we may safely reject a theory founded on such a basis.

VI.—MR. REDDIE.

(xxiv.) He says that I spoke of a second *creation* of light.

Reply.—This use of the word “creation” appears to me to be a good illustration of the difficulty which originates from not attending to the accuracy of Scripture phraseology. The *creation* of light was at the primary creation of all things. Not in the universe, but upon earth, there was subsequent darkness when the earth became *thohu* and *bohū*. At the renovation of the earth in six days, the first act was “God said, Let there be light.” There was, then, *in this earth* intermingled light and darkness. The second act was, “God divided the light from the darkness.” The one was evening: the other, morning. This does not prove that there had been no pre-existing light on earth, much less that the universal light was extinguished. The six days’ work is an earthly scene. We have two beautiful parallels from the Scripture itself,—one from Jerusalem, the other from the human soul. Jerusalem, in David and Solomon’s days, was in light and peace. Her people’s sins had reduced the land to darkness, her Saviour’s return will more than restore the land to light. The second condition is described by Jeremiah, in the very terms employed by Moses :—“I beheld the earth, and, lo! it was without form and void; and the heavens, and they had no light.” The third condition is thus predicted, “Arise, Shine; for thy light is come, and the glory of the Lord is risen upon thee.” Regarding humanity as a whole, the Bible history of the human soul is parallel. First, God created man in His own image, which surely was a state of light. The condition of fallen man is

this :—Darkness hath covered the land, and gross darkness the people. His renewed condition is this :—God, who commanded the light to shine out of darkness, hath shined in our hearts, to give the light of the knowledge of the glory of God in the face of Jesus Christ. The last parallel may be carried farther. Our present spiritual life is intermingled light and darkness. The resurrection state will be the morning. The account of the fourth day's work is not of the creation of light, but of assigning to the sun and moon their functions in an atmosphere. It would occupy too much space to enter into the verbal criticism of the Mosaic statement there.

VII.—THE CHAIRMAN.

(xxv.) He made a general statement that Hebrew formed no exception to the confusion of languages at Babel. He offered no proof of this.

Reply.—I should have been very glad if Mr. Mitchell had stated what he considers misinterpretations, for his papers in the *Journal of the Institute* I have found always valuable and instructive. May he long continue to render equal service to Divine truth and to real science.

I have now answered in detail all the criticisms on my paper, and I must conclude by expressing my great disappointment that the general principles of the paper have been so little criticised. Where so much has been said, I hope I may take this fact as an indirect proof that they are correct. In my opinion, the truth and the interpretation of Scripture should always be handled with reverential earnestness ; and even in human science, we should remember that national history, human language, and natural phenomena are all God's work.